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Application Number	10507453
Filing Date	2004-09-13
First Named Inventor	GERD REIM
Art Unit	2874
Examiner Name	Doan, Jennifer
Attorney Docket Number	REP-0027

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10/507453

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Device and method for optoelectronically detecting the movement and/or position of an object.

DT09 Rec'd PCT/PTO 13 SEP 2004

Reference to related applications

*J.D.
4/12/07*
This application is a 371 of PCT/EP 03/0245, filed on 03/11/2003.
The present application claims the priority of the German patent application 102 11 307.6 filed on 13.03.2002 the disclosure of which is also hereby expressly included within the subject matter of the present application.

Field of the invention

[0001] The invention relates to a device and to a method for optoelectronically detecting the movement and/or the position of an object in accordance with the preamble of Claims 1 and 18.

State of the art

[0002] Virtually every modern item of equipment possesses a key field for the operation thereof. This may extend from just a few keys up to the size of a PC keyboard. Key fields comprising 3 x 4 or 4 x 4 keys have become established as a standard size in the segment relating to the operation of automatic devices. These keyboards are often exposed externally to a high dirt load. The demands generally made on a keyboard are that it should always be ready for operation, be easy to operate and easy to clean. Furthermore, the questions of anti-vandalism and freedom from germs also play a role, especially in the case of publicly accessible automatic devices.

[0003] The keyboards marketed until now usually consist of individual mechanical switching elements. Hereby, an electrical contact is closed or opened by the pressure of the operator's finger. Keyboards of this type contain moving parts which are subject to mechanical wear.

[0004] As is derivable from US 4,092,640 A1 for example, use is also made of individual switching elements in the form of keys which use the antenna effect of the human body.